REMARKS

STATUS OF THE CLAIMS

Claims 18-25 and 27-29 remain in the case. Claims 18-25 and 27-29 stand rejected. Claims 18 and * have been amended. No new claims have been added. No new matter has been added. Claims 1-17, 26, and 30-40 have been cancelled.

In this Amendment, Applicant has amended Claim 18 and cancelled Claims 1-17, 26, and 30-40 from further consideration in this application. Applicant is <u>not</u> conceding that the subject matter encompassed by Claims 18, 1-17, 26, and 30-40, prior to this Amendment is not patentable over the art cited by the Examiner. Claim 18 was amended and Claims 1-17, 26, and 30-40 were cancelled in this Amendment solely to facilitate expeditious prosecution of the remaining claims. Applicant respectfully reserves the right to pursue claims, including the subject matter encompassed by Claims 18, 1-17, 26, and 30-40, as presented prior to this Amendment and additional claims in one or more continuing applications.

AMENDMENTS TO THE SPECIFICATION

Applicants have amended the Title and the Abstract of the Invention to reflect the cancellation of the apparatus and system claims.

RESPONSE TO CLAIM REJECTIONS UNDER 35 U.S.C. § 112

Claims 1, 7, 13, 18, 25, 30, and 36 stand rejected under 35 U.S.C. §112, first paragraph, as failing to comply with the enablement requirement. The Office Action's position is that the Specification fails to enable one skilled in the art to make or use a "failure prediction algorithm." Claims 1, 7, 13, 30, and 36 have been cancelled. Applicants respectfully disagree and traverse the rejection of Claims 18 and 25 under 35 U.S.C. § 112.

M.P.E.P. § 2164.01(b) states that "as long as the specification discloses at least one method for making and using the claimed invention that bears a reasonable correlation to the entire scope of the claim, then the enablement requirement of 35 U.S.C. 112 is satisfied. *In re Fisher*, 427 F.2d 833, 839, 166 USPQ 18, 24 (CCPA 1970)." Applicants respectfully submit that

the Specification discloses at least one method for making and using a "failure prediction algorithm" that has a reasonable correlation to the scope of the claims. One example of a failure prediction algorithm that comprises fuzzy logic rules is included in Figure 6B. Applicants submit that this embodiment of a failure prediction algorithm comprising fuzzy logic rules is all that is required to fully enable the invention and that a discussion of the *Wands* factors is not necessary to show enablement.

M.P.E.P. § 2164.04 places the burden to establish a lack of enablement on the Examiner. It states that "a specification disclosure which contains a teaching of the manner and process of making and using an invention in terms which correspond in scope to those used in describing and defining the subject matter sought to be patented **must** be taken as being in compliance with the enablement requirement of 35 U.S.C. 112, first paragraph, unless there is a reason to doubt the objective truth of the statements contained therein which must be relied on for enabling support." (See *In re Marzocchi*, 439 F.2d 220, 224, 169 USPQ 367, 370 (CCPA 1971) holding that "it is incumbent upon the Patent Office, whenever a rejection on this basis is made, to explain why it doubts the truth or accuracy of any statement in a supporting disclosure and to back up assertions of its own with acceptable evidence or reasoning which is inconsistent with the contested statement. Otherwise, there would be no need for the applicant to go to the trouble and expense of supporting his presumptively accurate disclosure." 439 F.2d at 224, 169 USPQ at 370.) The Office Action does not explain why it "doubts the truth or accuracy" of Figure 6B or of the rest of the Specification with regards to a failure prediction algorithm, and has not met its burden, and has not given Applicants' disclosure the required presumption of accuracy.

Even if the "trouble and expense" of the *Wands* factors is necessary to support Applicants "presumptively accurate disclosure," all of the *Wands* factors show that the Specification is enabling with regards to a failure prediction algorithm. M.P.E.P. § 2164.01(a) states that in *Wands*, "the Court held that the specification was enabling with respect to the claims at issue and found that "there was considerable direction and guidance" in the specification." *In re Wands*, 858 F.2d 731, 737, 8 USPQ2d 1400, 1404-1406 (Fed. Cir. 1988). An example of a failure prediction algorithm is clearly more enabling than mere "direction and guidance," and clearly

satisfies the enablement requirement as defined in the M.P.E.P. and by *Wands*. The *Wands* factors include, but are not limited to:

(A) The breadth of the claims;

(B) The nature of the invention;

(C) The state of the prior art;

(D) The level of one of ordinary skill;

(E) The level of predictability in the art;

(F) The amount of direction provided by the inventor;

(G) The existence of working examples; and

(H) The quantity of experimentation needed to make or use the invention based on the content of the disclosure.

In re Wands, 858 F.2d at 737, 8 USPQ2d at 1404.

The Breadth of the Claims

M.P.E.P. § 2164.08 states that "the scope of enablement must only bear a 'reasonable correlation' to the scope of the claims. See, e.g., *In re Fisher*, 427 F.2d 833, 839, 166 USPQ 18, 24 (CCPA 1970)." The breadth of the "failure prediction algorithm" in the remaining rejected Claims 18 and 25 clearly bears at least a "reasonable correlation" to the scope of enablement. Independent Claims 18 and 25 both state that the failure prediction algorithm comprises fuzzy logic rules. The Specification gives numerous examples of fuzzy logic rules and how to generate them. See Specification paragraphs [0048]-[0053], [0064]-[0065], [0077]-[0078], [0081]-[0082], [0086]-[0088], [0094]-[0120], and [0127]. An example of a failure prediction algorithm comprising fuzzy logic rules is given in Figure 6B. The Specification even teaches a traditional method of generating a failure prediction algorithm that may not comprise fuzzy logic rules in paragraph [0047].

The Nature of the Invention

M.P.E.P. § 2164.05(a) states that "the initial inquiry is into the nature of the invention, i.e., the subject matter to which the claimed invention pertains. The nature of the invention

becomes the backdrop to determine the state of the art and the level of skill possessed by one skilled in the art." The nature of the invention, as clearly stated in Claims 18 and 25, is "developing failure prediction software for a storage system" (Claim 18 preamble) and "predicting component failure within a storage system" (Claim 25 preamble). This is the backdrop for our next two inquiries. This backdrop clearly places the invention within the realm of failure prediction algorithms, as will be shown in the following two inquiries.

The State of the Prior Art

According to M.P.E.P. § 2164.05(a), "the state of the prior art is what one skilled in the art would have known, at the time the application was filed, about the subject matter to which the claimed invention pertains." The prior art clearly shows that failure prediction algorithms are known in the art. (See the SMART disk drive failure prediction algorithm of "Improved Disk-Drive Failure Warnings" by Hughes). The Specification itself clearly indicates that the user, in one embodiment, is "an expert in the field of data storage technologies" meaning "personnel who have been trained to manage and identify data storage devices or media cartridges that are degraded to a point that permanent failure (a permanent error) is imminent. The expert may have special training as well as on-the-job experience which allow the expert to weigh a plurality of imprecise variables in identifying whether a drive 112 or cartridge 116 is failing." (Specification, ¶ [0064]). By definition, one skilled in the art of failure prediction algorithms would surely be able to make and use a failure prediction algorithm when given one, as is given in Figure 6B.

The Level of One of Ordinary Skill

Falling directly from the inquiry into the state of the prior art is the level of one of ordinary skill in the art. As noted in the specification, one of ordinary skill in the art has at least "on-the-job experience," and may also have "special training." (Specification, ¶ [0064]). They "have been trained to manage and identify data storage devices or media cartridges that are degraded to a point that permanent failure (a permanent error) is imminent." (Specification, ¶ [0064]). The Specification further states that:

> "The failure prediction algorithm 206 comprises simple conditional statements (described in more detail below) that include a minimal number of symbols and read as complete

> sentences. Consequently, the failure prediction algorithm 206 may be drafted by personnel who work day to day with a storage system the failure prediction algorithm is intended to analyze. Alternatively, or in addition, the personnel may comprise field engineers, repair technicians, and others familiar with storage systems but who may not have software engineering or computer programming expertise." (Specification, ¶ [0082])

In other words, the level of one of ordinary skill in the art is a storage system worker trained to generate failure prediction algorithms for storage systems. The Specification clearly enables those trained in generating failure prediction algorithms to generate failure prediction algorithms.

Additionally, Claim 18 states and the Specification teaches, that the failure prediction algorithm is in "a natural language format" (Claim 18), and may comprise "simple condition statements" and "read as complete sentences." Consequently, even if the level of one of ordinary skill in the art is much lower than a field technician, even those of the basest skill can complete simple sentences in a natural language. Even those that cannot generate simple sentences or conditional statements could use the example failure prediction algorithm from Figure 6B, and enabling a single embodiment is all that is required for enablement.

The Level of Predictability in the Art

The invention itself makes this inquiry moot, because even if the art was extremely unpredictable, which it is not, both Claims 18 and 25 disclose "revising" (Claim 18) or "tuning" (Claim 25) a failure prediction algorithm, "such that the result corresponds to an expected result" (Claim 18). Even if the results of generating a failure prediction algorithm were unpredictable, the invention provides for that unpredictability and allows the revision of the failure prediction algorithm until predictable results are obtained, making the results predictable. M.P.E.P. § 2164.03 states that "the more predictable the art is, the less information needs to be explicitly stated in the specification." This clearly shows that very little must be stated in the Specification, and that an example, as given in Figure 6B, is more than sufficiently enabling.

The Amount of Direction Provided by the Inventor

As described above, Applicants have given extensive directions in the Specification. The Office Action states that "there are no pseudo code or code which would aid the Examiner on how to interpret the generation of a failure prediction algorithm." (Office Action, pg. 4, ¶ 3, "(F)"). Applicants respectfully submit that Figure 6B is one example that aids the Examiner in interpreting the generation (Claim 18) and the execution (Claim 25) of a failure prediction algorithm. Claim 18 further states that a failure prediction algorithm is "stored in a natural language format," so no code or pseudo-code is necessary for an interpretation of the term. As noted above, in addition to Figure 6B, Applicants have extensively described a failure prediction algorithm, its generation and its execution in at least paragraphs [0048]-[0053], [0064]-[0065], [0077]-[0078], [0081]-[0082], [0086]-[0088], [0094]-[0120], and [0127] of the Specification.

The Existence of Working Examples

A working example of a failure prediction algorithm is given in Figure 6B. Several embodiments of generating and executing failure prediction algorithms are also given in paragraphs [0047], [0048]-[0053], [0064]-[0065], [0077]-[0078], [0081]-[0082], and [0094]-[0120] of the Specification. The existence of working examples clearly shows that the Specification enables the generation and execution of a failure prediction algorithm.

The Quantity of Experimentation Needed to Make or Use the Invention Based on the Content of the Disclosure

If the embodiment of a failure prediction algorithm from Figure 6B is used, no experimentation is required to make or use the invention. One or reasonable skill in the art of storage system failure prediction could easily, with little or no experimentation, adapt the example embodiment of the failure prediction algorithm from Figure 6B to their own needs, or generate an entirely new failure prediction algorithm in a simple natural language format. The lack of **any** experimentation, much less the requisite **undue** experimentation clearly shows that the invention as a whole, and particularly the failure prediction algorithm, is enabled by the Specification.

The clear example of a failure prediction algorithm in Figure 6B, the presumption of accuracy required of the Specification, and each of the *Wands* factors as explained above show that the failure prediction algorithm of Claims 18 and 25 is sufficiently enabled under 35 U.S.C. § 112 and under the guidelines published in the M.P.E.P. Applicants respectfully request that the rejection of Claims 18 and 25 under 35 U.S.C. § 112 be withdrawn.

RESPONSE TO CLAIM REJECTIONS UNDER 35 U.S.C. § 101

Claims 18-24 stand rejected under 35 U.S.C. §101 for nonstatutory subject matter. The Office Action's position is that Claims 18-24 each fail to "set forth a practical application of that §101 judicial exception to produce a real-world result." Applicants respectfully disagree and traverse the rejection of Claims 18-24 under 35 U.S.C. § 101. However, to facilitate prompt allowance, Applicants have amended Claim 18 to substantially include the limitations of cancelled Claim 1, which was not rejected under 35 U.S.C. § 101, which the Examiner found to be statutory.

Applicants further submit that, as a process, Claims 18-24 as amended are clearly statutory because the Office Action fails to state which judicial exception to the broad language of § 101 Claims 18-24 fall under. The Office Action seems to jump to the last analytical step outlined in M.P.E.P § 2106.IV without undertaking the first steps, thus failing to establish a *prima facie* case. The U.S. Supreme Court has declared that Congress chose expansive language in 35 U.S.C. § 101 to include "anything under the sun that is made by man." *Diamond v. Chakrabarty*, 447 U.S. 303, 308-09, 206 USPQ 193, 197 (1980); M.P.E.P § 2106.IV.A, 8th ed, rev. 5 (Aug. 2006). This perspective has also been embraced by the Federal Circuit. See M.P.E.P. § 2106.IV.A.

To determine whether an invention is statutory, the M.P.E.P. in section 2106 has provided a guide for examiners in determining if the claimed invention falls within the judicial exceptions to § 101. M.P.E.P. § 2106.IV.C. et seq. Claims 18-24 in the Application are clearly not natural phenomena or laws of nature. While there is some math involved in the fuzzy logic rules of Claims 18-24, the claims do not recite any mathematical equations and do not fall under the abstract idea exception, so a rejection based on §101 is improper. As outlined in previous Office

Action Responses (See Applicants Office Action Response filed August 7, 2007), Applicants also respectfully submit that Claims 18-24 transform an article, and have a result that is useful, tangible, and concrete. For these reasons, and because Applicants have amended Claim 18 to include the statutory subject matter from cancelled Claim 1, Applicants respectfully request that the rejection of Claims 18-24 under 35 U.S.C. § 101 for nonstatutory subject matter be removed.

RESPONSE TO CLAIM REJECTIONS UNDER 35 U.S.C. §103(a)

Claims 1-7, 9-13, 15-25, and 27-40 stand rejected under 35 U.S.C. §103(a) as being unpatentable over "Fixed Time Life Tests Based on Fuzzy Life Characteristics" (hereinafter Kanagawa) in view of "Improved Disk Drive Failure Warnings" (hereinafter Hughes), "Fuzzy Fundamentals" (hereinafter Cox), "A Layer Based Computational Model Plus a Database Structure as a Framework to Build Parallel Fuzzy Controllers" (hereinafter Andrade), "Fuzzy Guidance Controller for an Autonomous Boat" (hereinafter Vaneck), and/or U.S. Patent No. 5,832,467 to Wavish (hereinafter Wavish). Although Applicants respectfully traverse each of the rejections, Applicants will only address the rejections of Claims 18-25 and 27-29 which remain in the case.

To establish a *prima facie* case of obviousness, each and every element of a claim must be taught or suggested by the prior art. *In re Royka*, 490 F.2d 981, 180 USPQ 580 (CCPA 1974). "All words in a claim must be considered in judging the patentability of that claim against the prior art." *In re Wilson*, 424 F.2d 1382, 1385, 165 USPQ 494, 496 (CCPA 1970). If an independent claim is nonobvious under 35 U.S.C. 103, then any claim depending therefrom is nonobvious. *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988). See also MPEP § 2143.03. As quoted in M.P.E.P § 2143, the recent Supreme Court case of *KSR v. Teleflex* also requires that, when determining "whether there was an apparent reason to combine the known elements in the fashion claimed by the patent at issue[,] to facilitate review, this analysis should be made explicit." *KSR International Co. v. Teleflex Inc.*, 550 U.S. ___, ___, 82 USPQ2d 1385, 1396 (2007).

Rejection of Claims 18-24

18. A method for developing failure prediction software for a storage system, the method comprising:

assisting a user in generating a failure prediction algorithm comprising fuzzy logic rules, the failure prediction algorithm stored in a natural language format;

generating machine-readable code from the stored failure prediction algorithm in response to user input;

testing the machine-readable code with sample data to produce a result in response to user input; and

selectively revising the failure prediction algorithm in response to user input such that the result corresponds to an expected result.

Amended Claim 18

Claim 18 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Kanagawa in view of Hughes and Wavish. Applicants respectfully submit that the Office Action has provided no explicit analysis of why one of ordinary skill in the art of storage system failure prediction would look to Kanagawa, Hughes, or Wavish, as required by *KSR* and M.P.E.P. § 2143, and that the Office Action fails to establish a *prima facie* case of obviousness. Applicants further submit that Kanagawa does not teach generating a failure prediction algorithm comprising fuzzy logic rules stored in a natural language format, and that Hughes does not teach generating machine-readable code from a stored failure prediction algorithm, or testing the machine-readable code to produce a result.

<u>*Kanagawa*</u>

The Office Action suggests that Kanagawa teaches the "generating a failure prediction algorithm comprising fuzzy logic rules, the failure prediction algorithm stored in a natural language format" of Claim 18. (Office Action, pg. 24, ¶ 2). The Office Action equates the reliability demonstration test of Kanagawa with the failure prediction algorithm, and equates the

fuzzy theory of Kanagawa with the fuzzy logic rules. (*Id.*) The Office Action fails to address the "natural language format" of Claim 18.

Applicants respectfully submit that the reliability demonstration test of Kanagawa is not equivalent to the failure prediction algorithm of Applicant's Claim 18. Kanagawa teaches calculating the reliability, or MTBF, of a group by letting a sample from the group run until failure. Kanagawa then calculates whether the MTBF is acceptable or not using fuzzy logic sets. (Kanagawa, Abstract, C2:10-16). The reliability demonstration test of Kanagawa does not use a failure prediction algorithm to predict failure, it lets devices run until they do fail, thereby demonstrating reliability. The reliability demonstration does not involve any prediction, and Kanagawa does not teach failure prediction. Kanagawa teaches the monitoring of failures in "fixed-time life tests," which is fundamentally different than generating a failure prediction algorithm. (Kanagawa, C2:10-16).

Applicants further respectfully submit that even if Kanagawa's reliability demonstration were a failure prediction algorithm, it does not comprise fuzzy logic rules, and is not stored in a natural language format. Kanagawa does teach the use of fuzzy sets in deciding whether or not a lot has an acceptable MTBF. Fuzzy sets are fundamentally different than fuzzy logic rules, and their use in Kanagawa is also different than in Claim 18.

Fuzzy logic rules are logical expressions that operate on fuzzy sets (also known as fuzzy variables) to produce an output, much as an algebraic expression operates on a variable. See paragraphs [0052] and [0102]-[0118] of the Specification for a detailed description of fuzzy logic rules and fuzzy logic sets/variables. Kanagawa does teach the use of fuzzy logic sets in determining whether a group of devices is acceptable. Applicants submit, however, that Kanagawa does not teach fuzzy logic rules, and clearly does not teach a failure prediction algorithm that comprises fuzzy logic rules. Kanagawa's fuzzy logic sets are not fuzzy logic rules, are not stored in a natural language format, and do not predict failure.

Hughes

Applicants respectfully submit that Hughes does not teach generating machine-readable code from a stored failure prediction algorithm, or testing the machine-readable code to produce

a result. The Office Action suggests that because Hughes teaches a microprocessor that executes the SMART application, that it must also generate machine-readable code, because "the application must be able to be compiled." (Office Action, Page 25, ¶ 1-2).

Applicants submit that being able to be compiled is not equivalent to "generating machine-readable code from the stored failure prediction algorithm" of Claim 18. The microprocessor of Hughes does run the SMART failure warning algorithm, which presumably comprises machine-readable code. This does not necessarily imply that the SMART failure warning algorithm was compiled, as device level microprocessor code is usually written directly as machine readable code and not compiled. Even if it was compiled, Hughes does not teach compiling a failure prediction algorithm comprising fuzzy logic rules stored in a natural language format into machine readable code. Hughes teaches that a storage drive itself measures up to 30 failure attributes, and that this technology is "manufacturer proprietary." (Hughes, pg. 351, C1:20-43). Because the technology is proprietary, Hughes does not teach what, if anything is compiled, and clearly does not teach generating machine-readable code from a natural language format failure prediction algorithm comprising fuzzy logic rules. It is more likely that the SMART algorithm is implemented as a combination of hardware sensors and low level instructions, however Hughes expressly states that the implementation of the technology is proprietary, and thus unknown. Hughes cannot teach something that is unknown, and does not teach generating machine-readable code from a stored natural language failure prediction algorithm.

Given that Kanagawa, Hughes, and Wavish fail to teach or suggest all of the elements recited in independent Claim 18 as amended, Applicants respectfully submit that independent Claim 18 is patentable over Kanagawa, Hughes, and Wavish. Given that dependent Claims 19-24 depend from Claim 18, Applicants respectfully submit that Claims 19-24 are also patentable over Kanagawa, Hughes, and Wavish. Applicants respectfully request that the rejection of Claims 18-24 under 35 U.S.C. §103(a) be withdrawn.

<u>Rejection of Claims 25 and 27-29</u>

25. A method for predicting component failure within a storage system, the method comprising:

gathering performance data for a storage system;

executing a failure prediction algorithm on the performance data to produce a result, the failure prediction algorithm comprising fuzzy logic rules;

tuning the failure prediction algorithm by adjusting a fuzzy variable definition; and

selectively forecasting failure of one or more components of the storage system in response to the result.

Claim 25

Claim 25 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Kanagawa in view of Hughes. Applicants respectfully submit that the Office Action has provided no explicit analysis of why one of ordinary skill in the art of storage system failure prediction would look to Kanagawa or Hughes, as required by *KSR* and M.P.E.P. § 2143, and that the Office Action fails to establish a *prima facie* case of obviousness. Applicants further submit that Kanagawa does not teach gathering performance data for a storage system, executing a failure prediction algorithm comprising fuzzy logic rules on the performance data to produce a result, or tuning the failure prediction algorithm by adjusting a fuzzy variable definition.

Kanagawa

The Office Action suggests that Kanagawa teaches the "gathering performance data for a storage system" of Claim 25 with the statement "let *n* items be drawn at random." (Office Action, pg. 9, ¶ 3; Kanagawa, C2:7-16). As described above with relation to Claim 18, the *n* items of Kanagawa are a sample of a group or "lot." (Kanagawa, C2:7-16). Selecting a random sample of items from a lot is clearly not gathering performance data for a storage system. Kanagawa does

Kanagawa does not teach a storage system, or gathering performance data for that storage system.

The Office Action further suggests that Kanagawa teaches "executing a failure prediction algorithm on the performance data to produce a result, the failure prediction algorithm comprising fuzzy logic rules. (Office Action, pg. 9, ¶ 3). Applicants have discussed Kanagawa's lack of a failure prediction algorithm comprising fuzzy logic rules above with relation to Claim 18. Applicants further submit that Kanagawa does not teach **executing** a failure prediction algorithm on **performance data** to produce a **result**. Applicants respectfully submit that, for the reasons described previously, Kanagawa does not teach a failure prediction algorithm, and further that Kanagawa does not teach executing anything. The Office Action states that Kanagawa does not teach generating machine readable code, or testing machine-readable code to produce a result. (Office Action, pg. 24, ¶ 4). Applicants submit that likewise, Kanagawa does not teach executing a failure prediction algorithm on performance data to produce a result.

The Office Action also suggests that Kanagawa's teaching that "the coefficients a_{ij} must be chosen so that the membership functions are continuous" is equivalent to "tuning the failure prediction algorithm by adjusting a fuzzy variable definition" of Claim 25. (Office Action, pg. 9, ¶ 3). Applicants respectfully submit that defining a polynomial membership function as continuous is not equivalent to tuning a failure prediction algorithm by adjusting a fuzzy variable definition. Kanagawa is merely stating the fact that the membership functions (examples of which are illustrated in Kanagawa's Table 1 on page 319) must be continuous. Even if this could be construed as a fuzzy variable definition, Kanagawa does not adjust the definition (it "**must**" be continuous), and clearly does not tune a failure prediction algorithm. At most, Kanagawa defines a membership function for an acceptability decision, but clearly does not tune a failure prediction algorithm by adjusting a fuzzy variable definition.

Given that Kanagawa and Hughes fail to teach or suggest all of the elements recited in independent Claim 25 as amended, Applicants respectfully submit that independent Claim 25 is patentable over Kanagawa and Hughes. Given that dependent Claims 27-29 depend from Claim 25, Applicants respectfully submit that Claims 27-29 are also patentable over Kanagawa and

Hughes. Applicants respectfully request that the rejection of Claims 25 and 27-29 under 35 U.S.C. §103(a) be withdrawn.

CONCLUSION

As a result of the presented amendments and remarks, Applicant asserts that Claims 18-25 and 27-29 are patentable and in condition for prompt allowance. Should additional information be required regarding the amendments or the traversal of the rejections of the independent and dependent claims enumerated above, Applicants respectfully request that the Examiner notify Applicants of such need. If any impediments to the prompt allowance of the claims can be resolved by a telephone conversation, the Examiner is respectfully requested to contact the undersigned.

Respectfully submitted,

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